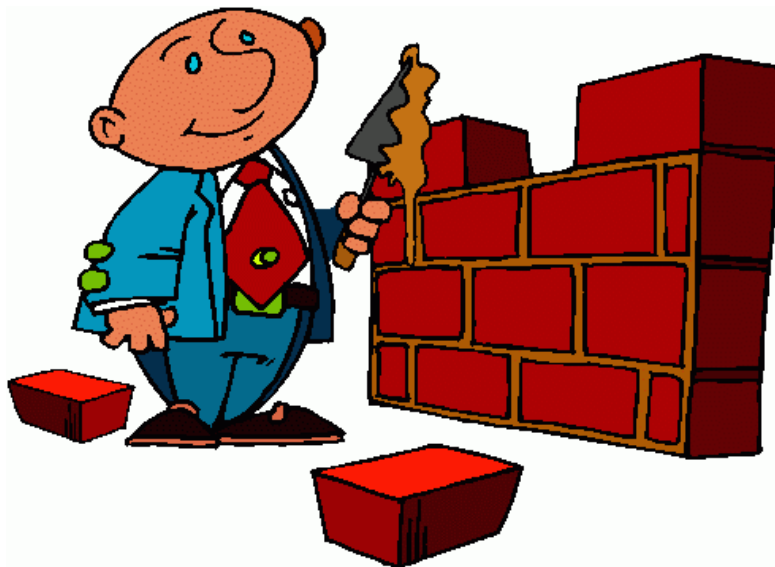


Ratios Pretest

Grade: «grade»
Subject: Mathematics
Date: «date»

- 1 A mason places 15 bricks per minute. How many bricks could he place in a half hour?

- A 45
☒ B 450
C 600
D 900



Think if he can lay 15 bricks in 1 minute, how many can he place in 30 minutes?
 $15 \times 30 = 450$ bricks in half an hour.

- 2 In a class, there are 5 girls for every 3 boys. How many boys would there be in a class of 32 students?

- ☒ 12
B 20
C 18
D 25



The ratio should be set up as follows: (this is a part to part ratio)

G B
5 : 3

But the question is asking how many boys compared to ALL students.
Go back and make a new ratio showing Boys to ALL

B A
3 : 8
x : 32 Cross multiply as usual

- 3 If a ratio is 12:18, the rat

- ☒ 2:3
B 6:9
C 4:6
D 3:5



Think of the ratio as a fraction.

12/18 is 2/3 in lowest terms. 6 is the greatest common factor, so divide the numerator and denominator both by 6 to reduce to lowest terms.

4 If 4 chocolate bars cost \$2.98, how much would 6 chocolate bars cost?

- A \$3.98
- ☒ B \$4.47
- C \$5.96
- D \$26.82



Always set up money ratios with the money as the first term, or as a fraction with the numerator always being the money

Think if it costs \$2.98 for 4, how much for 6?

$$\frac{2.98}{4} = \frac{x}{6}$$

5 In which situation would a bar of soap cost the least?

- A 3 bars for \$5.00
- ☒ B 7 bars for \$8.00
- C 2 bars for \$3.00
- D 1 bar for \$1.19



To find the best buy, figure out how much it would cost for 1 of each. To do this, just divide money by the number of items.

$$\frac{\$5.00}{3}$$

$$\frac{\$8.00}{7}$$

$$\frac{\$3.00}{2}$$

The last one is already 1.

- 6 Lance Armstrong can run 2645m in 15 minutes. How far could he run in a half hour?

A 10580 m

B 176.3 m

C 39765 m

☒ 5290 m



Half hour is 30 minutes which is twice as long as 15 minutes, so he could run twice as far. Just multiply $2645 \times 2 = 5290$ m

- 7 On a map, a distance of 500 km is represented by a 7.5cm line. Using the same scale, a distance of 280 km is represented by a line with a length of:

A 2.1 cm

B 3.5 cm

C 16.1 cm

☒ 4.2 cm



set up a ratio and make sure you note which is km and which is cm

KM		CM	
500	:	7.5	
280	:	x	Make sure you put km with km!

$$\frac{500}{7.5} = \frac{280}{x}$$

- 8 In an 8 hour work day, Jenny earned \$66.00. How much was her hourly wage?

- A \$10.95
 B \$5.50
 C \$8.25
☒ D \$8.75



Wages are generally paid in \$/hr which means Money for 1 hour.
 If she makes \$66.00 for 8 hours, how much will she make for 1.
 Simply divide the money she made by the hours she worked.

$$\frac{\$66.00}{8} = \$8.25$$

- 9 In a band, the ratio of clarinets to drums is 2 : 5. If there are 21 clarinet and drum players in all, how many clarinet players are there?

- A 15
☒ B 6
 C 21
 D 3



This is the same type of question as the boy/girl student (question 2)
 Ratio is

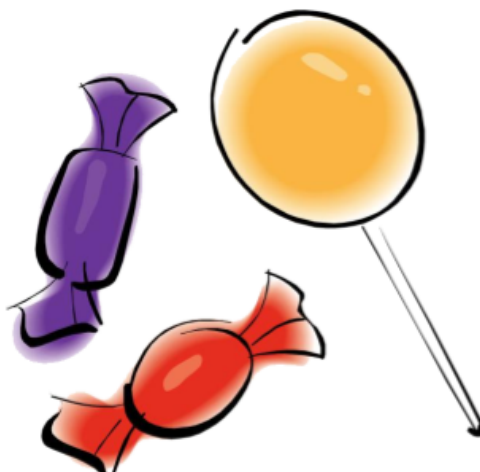
Clarinets Drums ALL (both clarinet and drums)
 2 : 5 : 7

Question is clarinets to all

$$\frac{2}{x} = \frac{7}{21}$$

10 If 400g of candy costs \$2.50, how much would 700g of candy cost?

- ☒ A \$4.38
B \$0.36
C \$5.63
D \$2.25

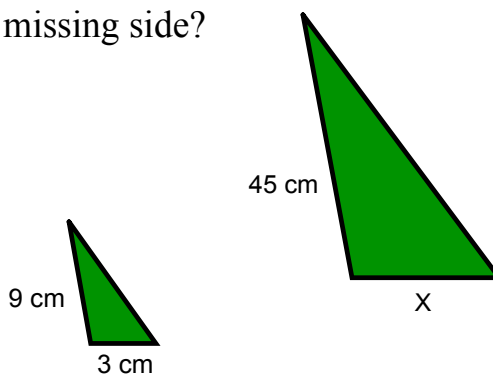


Set up a ratio

$$\frac{\$2.50}{400 \text{ g}} = \frac{x}{700 \text{ g}}$$

11 What is the length of the missing side?

- ☒ A 15 cm
B 25 cm
C 28 cm
D 20 cm



Set up a ratio of corresponding sides.

$$\frac{9}{45} = \frac{3}{x}$$

$$\frac{9}{3} = \frac{45}{x}$$

- 12 You have \$25.00 to buy gas for your car. If gas is \$1.03 per litre, how many litres of gas can you buy? (Round off to the nearest tenth if necessary)

- ☒ 24.3 litres
B 24.2 litres
C 19.1 litres
D 23.5 litres



set up a ratio.

Money		Litres
\$1.03	:	1
\$25.00		x

$$\frac{\$1.03}{1} = \frac{\$25.00}{x}$$